



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------------|------------------|
| 10/025,898 | 12/19/2001 | Weiqliang Zhang | SUNMP034 | 9253 |
| 7590 04/05/2006 | | | | |
| Albert S. Penilla MARTINE & PENILLA, LLP Suite 170 710 Lakeway Drive Sunnyvale, CA 94085 | | | EXAMINER COFFY, EMMANUEL | |
| | | | ART UNIT 2157 | PAPER NUMBER |
| DATE MAILED: 04/05/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,898

Applicant(s)

ZHANG ET AL.

Examiner

Emmanuel Coffy

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 29th, 2006 has been entered.

Claims 1-21 directed to a method and system for "Remote System Controller and Data Center and Methods for Implementing the Same" are pending. Claims 1, 12, 13, 14, 15, 16, 17, 18 and 20 are amended.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant is advised that only the significant limitation, which was added to overcome the prior art, is considered namely the amendment made to claim 1.

4. All objections not addressed in Applicant's response are herein reiterated.

Drawings

5. The informal drawings are not of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

Art Unit: 2157

applicant will be notified and informed of any required corrective action in the next Office action.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). Failure to timely submit replacement drawing sheets will result in ABANDONMENT of the application.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavner (US 6,430,607) in view of Helmer et al. (US 6,411,991) in further view of Olson et al. (US 5,987,376).

Kavner teaches the invention substantially as claimed including a remote request system and method which monitors and controls the execution of remote requests on an on-line services network. (See abstract)

Claim 1:

A process execution management system, the system comprising:
a controller system being accessible over a network to enable remote user access to data managed by the controller system, including, (See Fig. 1)

a data center component configured to include data required to execute a process by a processing resource that is in communication with the controller system; (See Fig. 1, index 104)

a first user interface component instance for enabling a first user interface to provide an interface to a first copy of the data center component, the first user interface being configured to notify the data center component of a change to the first copy of the data center component; and (See Fig. 1, Fig. 2, Fig. 3 index 102, col. 9, lines 40-45; col. 11, lines 56-65; col. 12, lines 23-29.)

a second user interface component instance for enabling a second user interface to provide the interface to a second copy of the data center component, the second user interface being configured to notify the data center component of a change to the second copy of the data center component, (See Fig. 1, Fig. 2, Fig. 3 index 102, col. 9, lines 40-45; col. 11, lines 56-65; col. 12, lines 23-29.)

Kavner fails to explicitly disclose wherein the data center component is configured to be changed so as to include the change to the first copy of the data center component, and the data center component is configured to issue an update including the change to the first copy of the data center component and the second copy of the data center component to the second user interface so as to maintain synchronized data between the first and second user interfaces having access to the data center component, and further wherein the data center component is configured to be changed so as to include the change to the second copy of the data center component, and the data center component is configured to issue an update to each of the first user

interface to maintain synchronized data between the first and second user interfaces having access to the data center component.

However, Helmer discloses data synchronization throughout. (See particularly col. 5, line 66-col. 6, line 64; col. 7, lines 8-19; col. 8, lines 1-44)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the service system articulated by Kavner with the data synchronization system disclosed by Helmer because if the data in the data center were lost, the data stored in the first and second copy would be the most recent.

Neither Kavner nor Helmer explicitly discloses a method for providing synchronized data to a plurality of remote user interfaces. However, Olson does. See col. 2, lines 48-52; and col. 5, lines 37-55; col. 37-55; col. 9, line 10-col. 10, line 43 particularly col. 10, lines 19-34.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the service system articulated by Kavner and the data synchronization system disclosed by Helmer with the distribution and synchronization of data as disclosed by Olson. Such system would allow for the transparent interoperation and communication between applications that run on respective client computers connected via particular network.

Claim 2:

kavner teaches a process execution management system of claim 1, wherein the data center component is configured to register with a registry service. (See Fig. 1 index 135); See also col. 8, lines 6-17.

Claim 3:

kavner substantially teaches a process execution management system of claim 1, wherein each of the user interfaces obtains a copy of the data center component by communicating a request to the registry service. (See Fig. 1 index 135); See also col. 8, lines 6-17.

Kavner fails to explicitly disclose obtaining a copy of the data center component by communicating a request to the registry service. However, Helmer discloses obtaining a copy of the data center component. (See particularly col. 5, line 66-col. 6, line 64; col. 7, lines 8-19; col. 8, lines 1-44)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the service system articulated by Kavner with the data synchronization system disclosed by Helmer because if the data in the data center were lost, the data stored in the first and second copy would be the most recent.

Claim 4:

kavner teaches the process execution management system of claim 2, wherein each of the user interfaces provides the registry service with a user interface identification. (See Fig. 1 index 135); See also col. 8, lines 6-17; Fig. 4A index 404, Fig. 4B, Fig. 5, index 410.)

Claim 5:

kavner teaches the process execution management system of claim 2, wherein each of the user interfaces provides the registry service with a user interface address. (See Fig. 4B - exported interface list)

Claim 6:

Kavner substantially teaches the process execution management system of claim 5, wherein the data center component implements a refresh command to update each of the copies of the data center component. (See Fig. 1 index 135); See also col. 8, lines 6-17.

Kavner fails to explicitly disclose implementation of a refresh command. However, Helmer discloses such limitation. See col. 6, lines 39-46.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the service system articulated by Kavner with the refresh command disclosed by Helmer because this system would insure communication is established by sending the command on a regular interval.

Claim 7:

Kavner teaches the process execution management system of claim 6, wherein the data center component maintains each of the user interface identifications and each of the user interface addresses in an active list. (See Fig. 4B - exported interface list; see also col. 7, lines 36-48 – a logon implies an active list of users.)

Claim 8:

Kavner substantially teaches the process execution management system of claim 6 as discussed above wherein the data center component awaits receiving a refresh acknowledged command from each of the user interfaces.

Kavner fails to explicitly disclose the data center component, which awaits receiving a refresh acknowledged command from each of the user interfaces. However,

Helmer discloses such limitation. See col. 7, lines 14-20 and col. 8, lines 26-32.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the service system articulated by Kavner with the refresh acknowledged command disclosed by Helmer because a refresh acknowledged command would add to the handshake thereby providing a robust protocol.

8. Claim 9, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavner (US 6,430,607) in view of Helmer et al. (US 6,411,991) in further view of Olson et al. (US 5,987,376) and in further view of Godfrey et al. (US 6,662,217).

Claim 9:

Kavner substantially teaches the process execution management system of claim 7, wherein the data center component removes a user interface identification and a user interface address of the user interface failing to dispatch a refresh acknowledged command to the data center component. (See Fig. 4B - exported interface list)

Helmer discloses refreshed acknowledged command. See col. 7, lines 14-20 and col. 8, lines 26-32.

Neither Kavner, Helmer or Olson explicitly disclose removing a user interface address of the user interface failing to dispatch a refresh acknowledged command. However, Godfrey discloses removing a computer from the list of registered clients. See col. 7, lines 61-64. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the service system articulated by Kavner, the removal of unacknowledged refresh command disclosed by Helmer and the distribution and synchronization of data as disclosed by Olson with the removal of a

client from the list as disclosed by Godfrey because the list would be more accurate by reflecting the current list of registered clients.

Claim 10:

Kavner substantially teaches the process execution management system of claim 6, wherein each of the user interfaces awaits receiving a refresh command for a predetermined period of time. (See Fig. 4B - exported interface list)

Helmer discloses refreshed acknowledged command. See col. 7, lines 14-20 and col. 8, lines 26-32.

Neither Kavner, Helmer or Olson explicitly disclose receiving a refresh command for a predetermined period of time. However, Godfrey discloses such limitation. See col. 7, lines 55-59.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the service system articulated by Kavner and the removal of unacknowledged refresh command disclosed by Helmer and the distribution and synchronization of data as disclosed by Olson with receiving a refresh command for a predetermined period of time as disclosed by Godfrey because it would provide for predictable communication by sending a refresh command on a regular interval.

Claim 11:

Kavner substantially teaches the process execution management system of claim 10, wherein each of the user interfaces re-registers with the data center component if the user interface has not received the refresh command upon the passage of the predetermined period of time. (See Fig. 4B - exported interface list; See Fig. 1 index)

135); See also col. 8, lines 6-17.

Kavner does not explicitly disclose not receiving the refresh command upon the passage of the predetermined period of time. However, Helmer teaches not receiving the refresh command. See col. 6, lines 39-46 and col. 7, lines 14-20 and col. 8, lines 26-32.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Kavner with the service system articulated by Helmer because a refresh acknowledged command would add to the handshake thereby providing a robust protocol would provide for predictable communication by sending a refresh command on a regular interval.

Neither Kavner, Helmer or Olson explicitly disclose registration request for a predetermined period of time. However, Godfrey discloses such limitation. See col. 7, lines 55-59.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the service system articulated by Kavner, the removal of unacknowledged refresh command disclosed by Helmer and the distribution and synchronization of data as disclosed by Olson with a registration request for a predetermined period of time as disclosed by Godfrey because it would provide for predictable communication by sending a refresh command on a regular interval.

9. Claims 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Godfrey et al. (US 6,662,217) in view of Kavner (US 6,430,607) in further view of Helmer et al. (US 6,411,991.)

Godfrey teaches a distributed test administration architecture that enables a system administrator to test one or more servers accessible by the Internet from a remote administration computer that implements a browser. (See abstract)

Claim 12:

Godfrey substantially teaches a method for remotely accessing, scheduling, monitoring, and submitting a process, the method comprising:

launching a controller code, the controller code configured to include a data center and a user interface code; (See Fig. 1, index 22, index 26, col. 3, lines 57-65.)

initiating a first instance of a user interface component by the controller code; (See Fig. 8 index 214; col. 4, lines 28-31) (as part of the test set-up, the server sends test suite to the client.)

and monitoring an active status of the first user interface if the data center has not received a request to change the data in the data center copy from the first user interface. (See col. 7, lines 25-28) (the event coordination structure tracks a set of events.)

Godfrey does not teach registering the data center with a registry service; However, Helmer teaches registering the data center with a registry service. (See Fig. 1 index 135); See also col. 8, lines 6-17. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Godfrey with the registry system disclosed by Kavner because if the data in the data center were lost, the data stored in the registry would serve as back-up.

Neither Godfrey nor Helmer teaches maintaining a data center copy provided to

a first user interface synchronized with the data center if the data center has received a request to change data in another data center copy from the another user interface.

However, Helmer discloses data synchronization throughout. (See particularly col. 5, line 66-col. 6, line 64; col. 7, lines 8-19; col. 8, lines 1-44.)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Godfrey and the service system articulated by Kavner with the data synchronization system disclosed by Helmer because if the data in the data center were lost, the data stored in the first and second copy would be the most recent.

Claim 13:

Godfrey substantially teaches a method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 12 and discussed above. Godfrey does not teach initiating another instance of a user interface component by the controller code; However, Kavner teaches said limitation as indicated (See Fig. 1, Fig. 2, Fig. 3 index 102, col. 9, lines 40-45; col. 11, lines 56-65; col. 12, lines 23-29.)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Godfrey with the service system articulated by Kavner because if the data in the data center were lost, the data stored in the second copy would be the most recent.

Neither Godfrey nor Kavner teaches maintaining a data center copy provided to another user interface synchronized with the data center if the data center has received a data change request from a user interface. (See col. 7, lines 21-26.)

However, Helmer discloses data synchronization throughout. (See particularly col. 5, line 66-col. 6, line 64; col. 7, lines 8-19; col. 8, lines 1-44)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Godfrey and the service system articulated by Kavner with the data synchronization system disclosed by Helmer because if the data in the data center were lost, the data stored in the first and second copy would be the most recent.

Claim 14:

Godfrey substantially teaches a method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 12 and discussed above. Godfrey does not teach the following limitations. However, Kavner teaches user interface. (See Fig. 4B - exported interface list);

registering the user interface with the data center; See Fig. 1 index 135); See also col. 8, lines 6-17.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Godfrey with the service system articulated by Kavner because identifying user interfaces would facilitate troubleshooting, and billing and control access.

Neither Godfrey nor Kavner teaches wherein maintaining the data center copy provided to the first user interface synchronized with the data center includes, initiating the another instance of the user interface component by the controller code;

obtaining a copy of the data center by another user interface;

updating the data center upon a modification to the data center copy provided to the another user interface. However, Helmer discloses the above limitations at particularly col. 5, line 66-col. 6, line 64; col. 7, lines 8-19; col. 8, lines 1-44.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Godfrey and the service system articulated by Kavner with the data synchronization system disclosed by Helmer because if the data in the data center were lost, the data stored in the first and second copy would be the most recent.

Claim 15:

Godfrey substantially teaches a method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 14, awaiting a receipt of a refresh acknowledged command from the user interface for a predetermined period of time above. See col. 7, lines 55-59.

Godfrey does not teach wherein updating the data center upon the modification to the data center copy includes,

receiving a request to modify the data center copy from the another user interface; dispatching a refresh command to the user interface, the refresh command being configured to update the data center copy provided to the first user interface so as to maintain the data center copy provided to the first user interface synchronized with the data center; However Helmer discloses the above limitations at col. 7, lines 14-20 and col. 8, lines 26-32 col. 7, lines 14-20 and col. 8, lines 26-32.

Hence, it would have been obvious at the time of the invention for an artisan of

Art Unit: 2157

ordinary skill in the art to combine the architecture articulated by Godfrey with the service system articulated by Helmer because a refresh acknowledged command would add to the handshake thereby providing a robust protocol would provide for predictable communication by sending a refresh command on a regular interval.

Claim 16:

Godfrey teaches a method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 15, wherein the data center unregisters the first user interface if a refresh acknowledged command has not been received from the first user interface for the predetermined period of time. (See col. 7, lines 60-64.)

Claim 17:

Godfrey substantially teaches a method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 16, wherein the first user interface is configured to reregister with the data center if the data center copy of the first user interface has not been refreshed for a specific length of time. (See col. 7, lines 60-64.)

Godfrey does not disclose user interface and registry service. However, Kavner does. (See Fig. 4B - exported interface list); and registering the user interface with the data center; See Fig. 1 index 135); See also col. 8, lines 6-17. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Godfrey with the service system articulated by Kavner because identifying user interfaces would facilitate troubleshooting, and billing and control access.

10. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helmer et al. (US 6,411,991)) in view of Kävner (US 6,430,607 in further view of Godfrey et al. (US 6,662,217.)

Helmer teaches a system and method for replicating temporary data created by a server. (See abstract)

Claim 18:

Helmer substantially teaches method for providing synchronized data to a plurality of remote user interfaces, the method comprising:

launching a controller code having a data center and a user interface code; (See Fig. 1, Fig. 2 and Fig. 3)

providing a copy of the data center to one or more user interfaces upon receiving a request from the one or more user interfaces; (See Fig. 4B - exported interface list; col. 5, line 66-col. 6, line 64; col. 7, lines 8-19; col. 8, lines 1-44)

maintaining the data center copy and data center synchronized if a data change request is received from any of the one or more user interfaces; and (See col. 5, line 66-col. 6, line 64; col. 7, lines 8-19; col. 8, lines 1-44)

Helmer does not specifically teach maintaining and updating a list of one or more active user interfaces, the list of one or more active user interfaces is configured to include a user interface identity and a user interface address for each of the one or more active user interfaces; and monitoring an active status of the one or more user interfaces if the data change request has not been received. However Godfrey does See col. 7, lines 20-25 and lines 48-49 and (See Fig. 4B.)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Helmer with the service system articulated by Godfrey because identifying user interfaces would facilitate troubleshooting, and billing and control access.

Neither Godfrey nor Helmer teaches registering the data center with a registry service; initiating a first user interface component; However, Kavner does (See Fig. 4B - exported interface list) (See Fig. 1 index 135); See also col. 8, lines 6-17.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Helmer and the service disclosed by Godfrey with the registry system disclosed by Kavner because if the data in the data center were lost, the data stored in the registry would serve as back-up.

Claim 19:

Helmer substantially teaches a method for providing synchronized data to a plurality of remote user interfaces as recited in claim 18, wherein maintaining the data center copy and data center code synchronized includes,

dispatching a refresh command to the one or more user interfaces; (See col. 6, lines 39-46.)

awaiting for a previously determined period of time to receive a refresh acknowledged command from the one or more user interfaces; and (See col. 7, lines 14-20 and col. 8, lines 26-32.)

receiving the refresh acknowledged command from the one or more user

interfaces. See col. 7, lines 14-20 and col. 8, lines 26-32.)

Helmer does not specifically teach one or more user interfaces. However Kavner does. (See Fig. 4B - exported interface list).

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Helmer with the service system articulated by Kavner because identifying user interfaces would facilitate troubleshooting, and billing and control access.

Neither Helmer nor Kavner teaches awaiting for a previously determined period of time. However Godfrey does. See col. 7, lines 55-59. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Helmer and the service system articulated by Kavner with the system of Godfrey because a refresh acknowledged command sent at regular interval would add to the handshake thereby providing a robust protocol.

Claim 20:

Helmer substantially teaches a method for providing synchronized data to a plurality of remote user interfaces as recited in claim 19, the method further including, deleting one or more user interfaces from the list of active one or more user interfaces if a refresh acknowledged command has not been received for the user interface. (See col. 6, lines 39-46; col. 7, lines 14-20 and col. 8, lines 26-32.)

Helmer does not specifically teach one or more user interfaces. However Kavner does. (See Fig. 4B - exported interface list).

Hence, it would have been obvious at the time of the invention for an artisan of

ordinary skill in the art to combine the architecture articulated by Helmer with the service system articulated by Kavner because identifying user interfaces would facilitate troubleshooting, and billing and control access.

Neither Helmer nor Kavner teaches deleting one or more user interfaces. However Godfrey does. See col. 7, lines 61-64. Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Helmer and the service system articulated by Kavner with the removal of a client from the list as disclosed by Godfrey because the list would be more accurate by reflecting the current list of registered clients.

Claim 21:

Helmer substantially teaches a method for providing synchronized data to a plurality of remote user interfaces as recited in claim 20, the method further including, receiving a re-register command from the user interface of the one or more user interfaces if the user interface has not received the refresh command for a specific length of time.

Helmer does not specifically teach one or more user interfaces. However Kavner does. (See Fig. 4B - exported interface list).

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the architecture articulated by Helmer with the service system articulated by Kavner because identifying user interfaces would facilitate troubleshooting, and billing and control access.

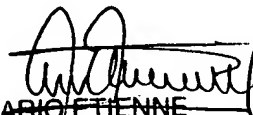
CONCLUSION

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Coffy whose telephone number is (571) 272-3997. The examiner can normally be reached on 8:30 - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Coffy
Patent Examiner
Art Unit 2157

EC
March 22, 2006


ARIO ETIENNE
PRIMARY EXAMINER